Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	**Applicant(s)**
Office Action Summary	09/454,969	FUKUDA, RYOJI
	Examiner	**Art Unit**	
	Abbas I Abdulselam	2674	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 May 2002</u> .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,2,4,7-14,22,23,25,28-34,42,43,45 and 48-54</u> is/are pending in the application.

  4a) Of the above claim(s) <u>3,5,6,15-21,24,26,27,35-41,44,46,47 and 55-61</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,2,4,7-14,22,23,25,28-34,42,43,45 and 48-54</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

  If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

  1.☐ Certified copies of the priority documents have been received.

  2.☐ Certified copies of the priority documents have been received in Application No. _____ .

  3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

  a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)	4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6)☐ Other: .

DETAILED ACTION

Response to Arguments

1.   Applicant argues that Babb et al. (USPN 5940065) does not teach a coordinate input

means placed on the display, a display control means, coordinate reception means, parameter

calculation means with respect to nonlinear conversion methods, and the codes associated with

each of the means listed. However as shown in the art rejection below, Babb teaches data

acquisition system (200) along with substrate (110) and the process of data transmission. Babb

teaches a touch screen system including detectors in terms of accurately determining a coordinate

position of a touch. Bab also teaches sensor data coordinates with respect to touch coordinates

that are not-linear and the use of least mean square curve for solutions of equations. In addition,

Babb teaches a Mathcard software which is used to compute the mapping coefficient and further

teaches programming codes which are used for efficient executions. Babb teaches a method

involving reception of an address in the form of X and Y values corresponding to uncorrected

coordinates and also teaches a method to produce corrected coordinates. Babb teaches mapping

of a sensor in terms of sample (160), touch detected (161), calculation (162), identification (163)

and computing X and Y coordinates (164). See column 1, lines 6-14, column 2, lines 1-9, column

4, lines 34-47, column 13, lines 5-10, column 17, lines 48-60, Fig 6 and Fig 7.

Claim Rejections 35 U.S.C. 102

> (e) the invention was described in a patent granted on an application for patent by another filed in the United
> States before the invention thereof by the applicant for patent, or on an international application by another who
> has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention
> thereof by the applicant for patent.

2   Claims 1-2, 4, 7-14, 22-23, 25, 28-34, 42-43, 45 and 48-54 are rejected under 35 U.S.C.

102(e) as being anticipated by Babb et al. (USPN 5940065).

Regarding claims 1, 22 and 42 , Babb teaches correcting of coordinates such as (X, Y),

and correction coefficients. See column 2, lines 1-9. Boob teaches uncorrected coordinates input

to be linearized by algorithm means before it is ready for lookup table which operates in linearized

space. See column 2, lines 11-14. Babb further teaches that the lookup table provides an

addressable storage for correction coefficients which are used to calculate a location from

measured detector values. See column 2, lines 1-2. Babb teaches that the coefficients are to be

solved using simultaneous equations. See column 4, lines 23-25 and column 11, lines 24-29. Babb

teaches the range of corrections as being from zero order to polynomial levels and also teaches a

mapping function to map the detector outputs to corrected coordinate positions. See column 2,

lines 9-10 and column 4, lines 19-23. Furthermore, Babb teaches a method for determining

coordinate positions with respect to a second medium having a surface from multiple input values.

See column 8, lines 49-67. Babb teaches a programmable read only memory (EEPROM) which

may be attached or included with a sensor for string coefficients. See column 10, line 66 and

column 11, lines 1-5. Likewise, Babb teaches 2K bit memory device that is used to store the

calculated and applied coefficients. See column 16, lines 50-53.

Babb teaches data acqusition system (200) along with substrate (110) and the process of

data transmission. Babb teaches a touch screen system including detectors in terms of accurately

determining a coordinate position of a touch. Bab also teaches sensor data coordinates with

respect to touch coordinates that are not-linear and the use of least mean square curve for solutions of equations. In addition, Babb teaches a Mathcard software which is used to compute the mapping coefficient and further teaches programming codes which are used for efficient executions. Babb teaches a method involving reception of an address in the form of X and Y values corresponding to uncorrected coordinates and also teaches a method to produce corrected coordinates. Babb teaches mapping of a sensor in terms of sample (160), touch detected (161), calculation (162), identification (163) and computing X and Y coordinates (164). See column 1, lines 6-14, column 2, lines 1-9, column 4, lines 34-47, column 13, lines 5-10, column 17, lines 48-60, Fig 6 and Fig 7.

Regarding claim 2, Babb teaches that for each set of coordinate values (X, Y), the detector values are used as variables A, B, C, D in the form of equations. See column 13, lines 20-32.

Regarding claims 4, 25 and 45, Babb teaches that the mapping equation which is capable of producing accurate position output. See column 3, lines 1-2, and column 4, lines 1-12.

Regarding claims 8, 29 and 49, Babb teaches solving simultaneous equations which determines coefficients. See column 11, lines 24-29

Regarding claims 10, 31 and 51, Babb teaches mapping for a set of sensor data coordinates to touch coordinates and also teaches that the mapping relation has inputs greater in number than outputs. See column 4, lines 39-47. Babb teaches distortions of coordinate values in X and Y and in rectangular shape. See Fig 1.

Regarding claim 43, Babb teaches a method of determining coefficients involving solving polynomial equations. See column 7, lines 25-48. Babb also teaches correction coefficients as well as storage for correction coefficients, and the steps of producing corrected coordinates. See column 2, lines 1-18.

Regarding claims 11,, 23, 32 and 52, Babb teaches a method of determining coefficients involving solving of polynomial equations. See column 7, lines 25-48. Babb also teaches correction coefficients as well as storage for correction coefficients, and the steps of producing corrected coordinates. See column 2, lines 1-18.

Regarding claims 12, 33 and 53, Babb teaches excitation which is applied to the bus bars (4)and then switched to a second set of bus bars to define the second coordinates. See column 2, lines 39-49, and Fig 2.

Regarding claims 13, 34 and 54, Babb teaches algorithmically compensated pressure and position sensor. See Fig 11.

Regarding claim 14, Babb teaches a mapping system which can be provided as software driver system in a connected host computer. See column 11, lines 6-8

Regarding claims 9, 30 and 50, see Fig 8 (257, 210).

Regarding claims 7, 28 and 48, Babb teaches that coefficients are solved in such a way that errors are minimized in a given data set which is an array of output values for specific points with known locations. See column 7, lines 34-43.

Conclusion

3.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of

time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date

of this final action.

4.   Any inquiry concerning this communication or earlier communication from the examiner

should be directed to **Abbas Abdulselam** whose telephone number is **(703) 305-8591.** The

examiner can normally be reached on Monday through Friday (9:00-5:30).

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709.**

                        Any response to this action should be mailed to:

                                Commissioner of patents and Trademarks

                                Washington, D.C. 20231

or faxed to:

                                (703) 872-9314

        Hand delivered responses should be brought to Crystal Park II, crystal drive, Arlington,

VA, Sixth Floor (Receptionist).

        Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Technology center 2600 customer Service office whose telephone

number is (703) 306-0377.

                                                        Abbas Abdulselam

                                                        Examiner

                                                        Art Unit 2674

RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600